

REMARKS/ARGUMENTS

This paper is filed in response to the Office Action mailed July 10, 2008 for the above-captioned application. Reconsideration and further examination are respectfully requested.

Applicants have herein made numerous amendments to the claims. Applicants have amended claim 1 to delete the first and third catalyst addition strategies such that the catalyst is added to the reaction mixture prior to melting the reaction components. Applicants have canceled claims 2-18 relating to the deleted strategies of claim 1 thereby leaving claims 1 and 19 through 43 pending. Applicants have also amended claim 1 to further specify that the molten reaction mixture is prepared in the monomer mix tank and that the residence time of the entire process (e.g. from the start of melting until substantial polymerization) is less than 4 hours. Applicants have made other changes to claim 1 such that it reads coherently after deleting the catalyst addition strategies. Support for these amendments can be found throughout the specification and no new matter has been added. In particular, support can be found at page 20 last paragraph to page 21 first paragraph of the specification.

Applicants have amended claims 19, 30, and 31 to correct typographical errors contained in these claims. Support for these amendments can be found throughout the specification and no new matter has been added.

Some of the Cited References Are Not Prior Art:

The Examiner rejects numerous claims under 103(a) over US 6,657,038 in view of US 7,057,004. Applicants note that the present application is a PCT national phase of PCT/US2005/002186 which claims priority from the application which has issued as US Patent No. 7,057,004. Therefore, US 7,057,004 is not available as a reference against the present application and these 103(a) rejections should be withdrawn.

Next the Examiner makes several rejections of claims under 35 USC 103(a) over EP 0508775 in view of secondary references including US 7,034,099. US 7,034,099 is only available as a reference under 102(e) and according to 103(c), US 7,034,099 is not available as a

reference under 103(a). US 7,034,099 and the present application were subject to assignment to the same entity (General Electric, Inc.) at the time the invention of the present application was made.

The 102 (b) rejections and the present amendments to the claims:

The Examiner rejects claims 1, 2-7, 10-12, 15, 16, 19-26, 28, 29, 31-38, 40, 44 and 45 under 35 USC 102(b) in view of EP 0508775. As indicated above, Applicants have made numerous amendments to the claims and canceled claims 2-18. Applicants submit the above amendments to the claims and the following remarks place the currently pending claims in form for allowance.

Applicants have amended claim 1, *inter alia*, to delete reference to the first and the third catalyst addition strategies. Claim 1, and hence the balance of pending claims in the application, now clearly require that the polymerization catalyst is added to the reaction mixture prior to melting the reaction mixture. Furthermore claim 1 requires that the molten reaction mixture is prepared in the monomer mix tank. The molten reaction mixture is then fed (e.g. continuously or semi-continuously) to polymerization equipment to effect substantial polymerization. This process is performed with the proviso that the residence time of the process from the start of melting until substantial polymerization has occurred is less than 4 hours. These limitations are not disclosed anywhere in the EP reference.

The EP reference discloses a catalyst introduction strategy that includes the addition of catalyst after melting. More specifically, Examples 1, 2, and 4-8 of the EP reference disclose producing a molten reaction mixture to which polymerization catalyst is subsequently added. The undersigned has studied the balance of the EP reference and can find no mention of the present limitations of the claims.

The undersigned notes that Example 3 of the EP reference indicates that an inorganic compound (e.g. a solution of boric acid) may be combined with the reaction mixture prior to melting the reaction components. The reaction components are then melted and an organic catalyst is added to the reaction mixture. This example is outside of the scope of the present claims. As a first matter Applicants note that claims 19-41 are specific to the addition of

an organic catalyst prior to melting the reaction components. No mention is made in the EP reference of adding the organic catalyst prior to melting. Next, the molten reaction mixture of all present claims is prepared in a monomer mix tank and is then fed (e.g. continuously or semi-continuously) to polymerization equipment (e.g. extruder(s), plug flow reactor(s), and the like) that build molecular weight to produce polycarbonate. Example 3 of the EP reference on the other hand discloses solely the use of a batch process and batch reactor to prepare the molten reaction mixture and to complete the polymerization reaction and therefore it does not disclose the use of multiple pieces of equipment to prepare the reaction mixture and then to complete the polymerization reaction.

These differences between the EP reference and the present claims are not trivial nor are they obvious variations. The present Inventors have identified, *inter alia*, that the elapsed time (e.g. the process residence time) from the start of melting to the time of substantial polymerization should be less than 4 hours in the multiple piece process system. This multiple piece system allows for a reaction mixture to be prepared in the monomer mix tank for a specific polymer production run. The monomer mixture is then fed (e.g. either continuously or semi-continuously) to polymerization equipment to produce polycarbonate. The total residence time of the system including from the start of melting to substantial polymerization is less than 4 hours. There is no direction or disclosure provided in the EP reference that residence time in a multiple equipment reaction system should be less than 4 hours.

A benefit of this process allows for the timely preparation of a second/separate monomer mixture for a different production run in a different monomer mix tank using the same polymerization equipment. The second monomer mixture can be prepared in the second monomer mix tank at a time when the first run is about to complete or at a time when it is understood that the total residence time of the second monomer mixture from the start of melting in the second monomer mix tank to substantial polymerization will be less than 4 hours. This allows for plant efficiency and decreased "down time" in that polymerization equipment (e.g. extruders, plug flow reactors, and the like) can be used most effectively.

For the foregoing reasons Applicants submit that the pending claims of the present application are now in form for allowance and such action is earnestly solicited.

The 103(a) rejections:

Next the Examiner makes several rejections of claims under 35 USC 103(a) over EP 0508775 in view of secondary references including US 6,747,119 and US 7,057,004. As indicated above, the rejection of claims in view of US 7,057,004 should be withdrawn because this reference is not prior art. US 6,747,119 is cited for providing a disclosure found in dependent claims that the carbonate source may be an activated diaryl carbonate. Applicants note that the only claims remaining pending in the present application that are rejected in view of US 6,747,119 are claims 27 and 39 which are dependent upon claim 1. Applicants submit that once the rejections of claim 1 are overcome so too will the rejections of claims 27 and 39 in view of US 6,747,119.

The Obviousness-Type Double Patenting Rejection:

The Examiner issues non-statutory obviousness-type double patenting rejection against claims 1-45 over US 7,034,099 and US 6,657,038 both in view of a secondary reference, US 7,057,004. These rejections are plainly incorrect and should be withdrawn.

A non-statutory obviousness-type double patenting rejection such as the one issued in this case is only appropriate where conflicting claims between two applications, although not identical, are not patentably distinct and/or are obvious variants. Although the specification of the cited applications may be used to determine the meaning of claim terms, they may not be used as prior art when determining whether the invention defined in a claim would have been an obvious variation of a claim in another application. *See* MPEP Section 804. Furthermore, the citation of a 'secondary reference' (e.g. here US 7,057,004) in the determination of whether the invention defined in a claim would have been an obvious variation of a claim in another application is likewise improper.

As a first matter, the Examiner improperly cites US 7,057,004 as a 'secondary' prior art reference for issuing the double patenting rejection. US 7,057,004 is not a prior art reference. As indicated above, the present application is a PCT national phase of PCT/US2005/002186 which claims priority from the application which issued as US 7,057,004. Applicants have already filed a terminal disclaimer in the present case in view of US 7,057,004.

Therefore the Examiner's rejections are clearly incorrect and must be withdrawn.

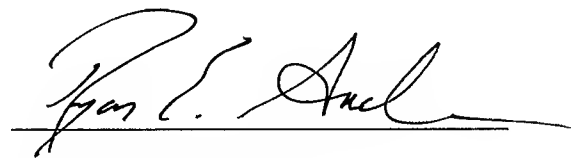
With regard to the first 'primary' reference, US 7,034,099, the Examiner fails to consider the scope of either the present claims or those of that patent. The present claims relate to timing of catalyst introduction while the claims of US 7,034,099 relate to the introduction of an antioxidant. The claims of the present application do not require the addition of antioxidant. The claims of US 7,034,099 do not require timing of catalyst introduction. Therefore the Examiner's rejections are clearly incorrect and must be withdrawn.

With regard to the second 'primary' reference this patent is available as a 102(b) reference against the claims of the present application. There is simply no equitable basis for issuing a double patenting rejection on a reference that is effective as a 102(b) basis. Therefore the Examiner's rejections are clearly incorrect and must be withdrawn.

If the Examiner is to maintain that the claims of the present application are obvious variants of any of the claims of US 7,034,099 or US 6,657,038, then Applicants request the Examiner to explain exactly which claims of the cited references are being cited in this determination and also to provide clear reasoning in making the rejection.

For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Marina T. Larson", is written over a horizontal line.

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